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| 10/614,297      | 07/08/2003  | Kevin Bradley Akins  | 01473.401400        | 7394             |

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| EXAMINER |
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PRONE, JASON D

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| ART UNIT | PAPER NUMBER |
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3724

DATE MAILED: 02/09/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/614,297

Applicant(s)

AKINS ET AL.

Examiner

Jason Prone

Art Unit

3724

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 08 December 2005.  
 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.  
 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-18 and 34-36 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) ☒ Claim(s) 34-36 is/are allowed.  
 6) ☒ Claim(s) 1,2,4-7 and 12-16 is/are rejected.  
 7) ☒ Claim(s) 3,8-11,17 and 18 is/are objected to.  
 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
 10) ☒ The drawing(s) filed on 08 December 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) ☐ All b) ☐ Some \* c) ☐ None of:  
 1. ☐ Certified copies of the priority documents have been received.  
 2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)  
 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
 Paper No(s)/Mail Date 12/8/05  
 4) ☐ Interview Summary (PTO-413)  
 Paper No(s)/Mail Date. \_\_\_\_\_  
 5) ☐ Notice of Informal Patent Application (PTO-152)  
 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 2, 4, 5, 7, 12, and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by Allen (95,406) (see page 9 of this Office action for examiner added reference numerals for clarity).

In regards to claim 1, Allen discloses the same invention including a conveyor assembly that conveys the product in a feed direction and defines a conveyance surface (C and K), a slitter assembly positioned relative to and coupled to the conveyor assembly (1a-g), the slitter assembly includes a plurality of cutting elements (1a-g) arranged in a V shape having an open end and a pointed end as viewed in a direction substantially normal to the conveyance surface (Fig. 2), the cutting elements overlap one another in the feed direction (Fig. 1), and the open end of the V shape is oriented in a leading direction and the pointed end is oriented in a trailing direction such that a product with a unitary, intact width may be fed to the open end in such a manner that its intact width spans at last the distance between the cutting elements at the open end (Fig. 2).

In regards to claims 2 and 4, Allen discloses an opening of the V shape is oriented in a leading direction (2) and the pointed end of the V shape is oriented in a

trailing direction (3) such that the product will be fed to the slitter from the open end of the V shape by the conveyor (K), and the plurality of cutting elements comprise a circular blade (1a-g).

In regards to claim 5, Allen discloses the slitter assembly further comprises a drive means for driving the circular blades (E) such that the tangential velocity of the blades is substantially greater than the velocity at which the product is conveyed (inherent).

In regards to claim 7, Allen discloses a slitter frame (A) a slitter arm coupled to the slitter frame (B), a leading slitter shaft (4a) and a trailing slitter shaft (4d) both rotatably supported by the slitter frame (Fig. 1), at least one intermediate slitter shaft (4f) rotatably supported by the slitter arm (Fig. 2), each of the slitter shafts extend transversely to the feed direction (4a-g), and at least one of the blades is rotatably supported on each of the slitter shafts (1a-g and 4a-g).

In regards to claim 12, Allen discloses the plurality of circular blades comprises a first pair of coaxial circular blades spaced apart in a direction transverse to the feed direction by a first distance (1a and 1e) and a second pair of coaxial circular blades spaced apart in a direction transverse to the feed direction by a second distance, less than the first distance and offset in the feed direction from the first pair (1b and 1f).

In regards to claim 13, Allen discloses a third pair of coaxial circular blades spaced apart in a direction transverse to the feed direction by a third distance, less than the second distance and offset in the feed direction from the second pair (1c and 1g).

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Allen in view of Thrasher (3,645,304). Allen discloses the invention but fails to disclose a peeler foot disposed above the conveyance surface which biases the product toward the conveyance surface and prevent the product from adhering to and riding-up the sides of the circular blades. Thrasher teaches a peeler foot disposed above the conveyance surface which biases the product toward the conveyance surface and prevent the product from adhering to and riding-up the sides of the circular blades (16). Therefore, it would have been obvious to one of ordinary skill in the art, at the time of the invention, to have provided Allen with a peeler foot, as taught by Thrasher, to keep the work piece flat against the conveyor to allow for a straight cut.

5. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Allen in view of Hurdle, Jr. (6,772,665). Allen discloses the invention but fails a chopping assembly positioned downstream of the slitter assembly to sever the strip of products transversely to the feed direction. Hurdle, Jr. teaches that it is old and well known to provide a chopping assembly positioned downstream of the slitter assembly to sever the strip of products transversely to the feed direction (28). Hurdle, Jr. discloses a piece of wood being transversely cut into a smaller piece (26) and it is old and well known that the piece of wood does not start off as the rectangle shown in Figure 1. That being

said, it is clear that the work piece must have been slit before or upstream of the chopper. Therefore, it would have been obvious to one of ordinary skill in the art, at the time of the invention, to have provided Allen with a chopping assembly, as taught by Hurdle, Jr., to cut the work piece transversely to create a more manageable piece.

6. Claims 1 and 12-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Roberson et al. (3,779,117) in view of Allen. In regards to claim 1, Roberson et al. discloses the invention including a conveyor assembly that conveys the product in a feed direction and defines a conveyance surface (5), a slitter assembly positioned relative to and coupled to the conveyor assembly (2, 4, 6, 8, and in Fig. 2 the far left center slitter), the slitter assembly includes a plurality of cutting elements (2, 4, 6, 8, and center slitter) arranged in a V shape having an open and pointed end as viewed in a direction substantially normal to the conveyance surface (Fig. 2), and the open end of the V shape is oriented in a leading direction and the pointed end is oriented in a trailing direction such that a product with a unitary, intact width may be fed to the open end in such a manner that its intact width spans at last the distance between the cutting elements at the open end (Column 3 lines 50-55).

In regards to claim 12, Roberson et al. discloses the plurality of circular blades comprises a first pair of coaxial circular blades spaced apart in a direction transverse to the feed direction by a first distance (8) and a second pair of coaxial circular blades spaced apart in a direction transverse to the feed direction by a second distance, less than the first distance and offset in the feed direction from the first pair (6).

In regards to claim 13, Roberson et al. discloses a third pair of coaxial circular blades spaced apart in a direction transverse to the feed direction by a third distance, less than the second distance and offset in the feed direction from the second pair (4).

In regards to claim 14, Roberson et al. discloses a fourth pair of coaxial circular blades spaced apart in a direction transverse to the feed direction by a fourth distance, less than the third distance and offset in the feed direction from the third pair (2).

In regards to claim 15, Roberson et al. discloses the plurality of circular saw blades comprises a central circular blade positioned such that a plane defined by the central circular blade intersects the midpoint of the first, second, third, and fourth distances and is offset in the feed direction from the fourth pair of circular blades (Fig. 2 far left center blade).

However, Roberson et al. fail to disclose the cutting elements overlap one another in the feed direction. Allen teaches that it is old and well known for blades in a V shape to overlap (Fig. 1). Therefore, it would have been obvious to one of ordinary skill in the art, at the time of the invention, to have provided Roberson et al. with overlapping blades, as taught by Allen, to reduce the overall length of the cutting apparatus.

### ***Response to Arguments***

7. Applicant's arguments filed 08 December 2005 have been fully considered but they are not persuasive. The apparatus to Allen is perfectly capable of conveying a thin work piece with an intact width that spans the distance toward the open end before it interacts with the initial dividing blade. When the thin work piece is being conveyed

before the initial, it is still being fed to the open end of the V. Saws 1a and 1b are both at the open end of the V. A work piece that has a width that fits in-between the edge of the conveyor and the initial dividing blade still has a width that spans the distance between cutting elements 1a and 1b.

Allen clearly teaches that it is old and well known in the art of V-shaped cutting elements to overlap the blades to Robertson et al. The patent to Murray (288,723) also teaches that it is old and well known. This overlapping would reduce the overall traveling of the work piece or length of the conveyor saving time and/or money.

***Allowable Subject Matter***

8. Claims 34-36 are allowed.
9. Claims 3, 8 (along with dependant claims 9-11), and 17 (with dependant 18) are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Claim 3 discloses the limitation of a belt support frame with recesses that receive the belt when the above mounted blade depress the belt by cutting all the way through the work piece. Claim 8 discloses the limitation of a pivotal slitter arm to raise the intermediate slitter shaft. Claim 17 discloses the limitation of a chopper with an elliptical cutting motion to that has a downward severing motion and a feedward pushing direction.

***Conclusion***

10. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).



A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason Prone whose telephone number is (571) 272-4513. The examiner can normally be reached on 7:30-5:00, Mon - (every other) Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Allan N. Shoap can be reached on (571) 272-4514. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Art Unit: 3724

JP  
February 03, 2006

Timothy V. Eley  
Primary Examiner

